32. A fusion protein comprising the isolated polypeptide of Claim 29.

33. The isolated polypeptide of Claim 29 wherein the polypeptide is the immunogenic fragment having no more than two single amino acid substitutions, deletions or additions relative to the aligned sequence.

34. The isolated polypeptide of Claim 29 wherein the polypeptide is the immunogenic fragment having no more than one single amino acid substitution, deletion or addition relative to the aligned sequence.

35. The isolated polypeptide of Claim 29 wherein the polypeptide is the immunogenic fragment which matches the aligned sequence.

36. An isolated polypeptide encoded by an isolated first polynucleotide wherein the isolated first polynucleotide hybridizes under stringent conditions to a second polynucleotide which encodes the polypeptide of SEQ ID NO:2; wherein stringent conditions comprise overnight incubation at 42° C. in a solution comprising: 50% formamide, 5×SSC (150 mM NaCl, 15 mM trisodium citrate), 50 mM sodium phosphate (pH7.6), 5× Denhardt's solution, 10% dextran sulfate, and 20 micrograms/ml denatured, sheared salmon sperm DNA, followed by washing the filters in 0.1× SSC at about 65° C.; wherein the isolated polypeptide, when administered to a subject, induces an immune response that recognizes a polypeptide having the sequence of SEQ ID NO:2.

37. An isolated polynucleotide encoding an polypeptide of Claim 29.

38. An expression vector comprising the isolated polynucleotide of Claim 37.

39. A host cell transformed with the expression vector of Claim 38.

40. A process of producing an isolated polypeptide comprising (a) culturing the host cell of Claim 39 under conditions sufficient for the production of the encoded polypeptide and (b) recovering the polypeptide.

41. A nucleic acid vaccine comprising the isolated polynucleotide of Claim 37 or an expression vector comprising the isolated polynucleotide, effective in a vaccinated mammal to express the polypeptide.

42. A live vaccine comprising the isolated polynucleotide of Claim 37 or an expression vector comprising the isolated polynucleotide comprised within a microorganism effective itself or through its host to express the polypeptide.

43. An isolated polynucleotide segment comprising a polynucleotide sequence or the full complement of the entire length of the polynucleotide sequence, wherein the polynucleotide sequence is identical to SEQ ID NO:1, except that, over the entire length corresponding to SEQ ID NO:1, $\mathbf{n_n}$ nucleotides are substituted, inserted or deleted, wherein $\mathbf{n_n}$ satisfies the following expression

$$\mathbf{n_n \leq x_n - (x_n \bullet y)}$$

wherein $\mathbf{x_n}$ is the total number of nucleotides in SEQ ID NO:1, **y** is at least 0.90, and wherein any non-integer product of $\mathbf{x_n}$ and **y** is rounded down to the nearest integer before subtracting the product from $\mathbf{x_n}$; and wherein the polynucleotide sequence detects a polynucleotide of SEQ ID NO:1.

44. The isolated polynucleotide of Claim 43 where **y** is at least 0.95.

45. An expression vector comprising the isolated polynucleotide of Claim 43 which codes for a polypeptide that, when administered to a mammal, induces an immune response that recognizes a polypeptide having the sequence of SEQ ID NO:2.

46. A host cell transformed with the isolated polynucleotide or an expression vector comprising the isolated polynucleotide of Claim 43.

47. A process of producing an isolated polypeptide comprising (a) culturing the host cell of Claim 46 under conditions sufficient for the production of the encoded polypeptide and (b) recovering the polypeptide.

48. A vaccine comprising the polypeptide of Claim 29.

49. The vaccine of Claim 48 further comprising an adjuvant.

50. The vaccine of Claim 49 wherein the adjuvant induces a TH1-type response.

51. The vaccine of Claim 50 wherein the adjuvant is a member selected from the group consisting of 3D-MPL, QS21, a mixture of QS21 and cholesterol, and a CpG oligonucleotide.

52. A method for inducing an immune response in a mammal comprising administration of the polypeptide of Claim 29.

53. A method for screening to identify compounds which stimulate or which inhibit the function of the polypeptide of Claim 29 which comprises a method selected from the group consisting of:

(a) measuring the binding of a candidate compound to the said polypeptide (or to the cells or membranes bearing the polypeptide) or a fusion protein thereof by means of a label directly or indirectly associated with the candidate compound;

(b) measuring the binding of a candidate compound to the said polypeptide (or to the cells or membranes bearing the polypeptide) or a fusion protein thereof in the presence of a labeled competitor;

(c) testing whether the candidate compound results in a signal generated by activation or inhibition of the said polypeptide, using detection systems appropriate to the cells or cell membranes bearing the polypeptide;

(d) mixing a candidate compound with a solution containing the polypeptide of Claim 29, to form a mixture, measuring activity of the polypeptide in the mixture, and comparing the activity of the mixture to a standard; or

(e) detecting the effect of a candidate compound on the production of mRNA encoding said polypeptide and said polypeptide in cells, using for instance, an ELISA assay.

54. A method for the treatment of a subject by immunoprophylaxis or therapy comprising *in vitro* induction of immune responses to a polypeptide of Claim 29, using *in vitro* incubation of the polypeptide with cells from the immune system of a mammal, and reinfusing these activated immune cells to the mammal for the treatment of disease.

55. A method as claimed in Claim 54 wherein the treatment is for ovarian or colon cancer.

56. A process for diagnosing a disease or a susceptibility to a disease in a subject related to expression or activity of the polypeptide of Claim 29 in a subject comprising:
(a) determining the presence or absence of a mutation in the nucleotide sequence encoding said polypeptide in the genome of said subject; and/or
(b) analyzing for the presence or amount of said polypeptide expression in a sample derived from said subject.
(c) analysing for the presence of an mRNA encoding the polypeptide of Claim 29 in a sample derived from said subject.

57. An isolated polypeptide comprising a member selected from the group consisting of
(a) an amino acid sequence which has at least 90% identity to SEQ ID NO:4;
(b) an immunogenic fragment of the amino acid sequence of (a) that matches an aligned contiguous segment of SEQ ID NO:4 with no more than three single amino acid substitutions, deletions or additions; and
(c) an immunogenic fragment of the amino acid sequence of (a), wherein the immunogenic fragment is at least 90% identical to the aligned contiguous segment of SEQ ID NO:4,
wherein the isolated polypeptide, when administered to a subject, induces an immune response that recognizes a polypeptide having the sequence of SEQ ID NO:4.

58. An isolated polynucleotide encoding the polypeptide of Claim 57.